



# Environmental Epidemiology

Phone: 515-281-7462  
<http://idph.iowa.gov/ehs>

Protecting & Improving  
the Health of Iowans



Iowans may be exposed to environmental conditions that cause disease at home, outdoors, and in the workplace. Environmental Epidemiology helps protect the health of all Iowans by watching for and investigating environmental diseases and illnesses such as, arsenic in private water wells, carbon monoxide poisoning, lead poisoning, work-related exposures, and environmental concerns during floods or other natural disasters. Environmental Epidemiology works with local and state partners to prevent illness and injury by providing data collection and analysis that impacts decisions made for outreach, awareness, and intervention activities. This includes assuring children are tested for lead poisoning, collaborating on activities that reduce exposure for lead-poisoned children and adults, and providing information on how to prevent harmful exposures and injuries at home, work, and play.

By working to understand and prevent harmful environmental exposures, Environmental Epidemiology helps keep Iowans safe.

## Did you know?

About 400 Iowa children born each year will become lead poisoned by their 6th birthday.

In 2014, there were 91 fatal occupational injury deaths reported in Iowa. Iowa has a higher percentage of older worker deaths (55 years of age or older) with a 2009-2013 average of 45% compared to a U.S. average of 32%. From 2009-2013, only 11% of the Iowa workforce worked in agriculture and construction but these workers had 49% of the fatal workplace injuries.

## Why is Environmental Epidemiology important to protecting and improving the health of Iowans?

- Everyone has some risk for developing an environmental or occupational disease.
- Nearly 40% of Iowa houses were built before 1950, and most of these homes contain lead-based paint. Young children who live in pre-1950 houses are lead-poisoned when they put paint chips or exterior soil in their mouths or when they get house dust and soil on their hands and put them in their mouths.
- In 2015, Iowa had 761 adults with an elevated blood lead test of 10 µg/dL or higher, with about 90% related to workplace exposure. Other adult elevated blood lead exposures in Iowa occur from hobby activities or while doing home renovation projects.
- In 2015, there were 27 deaths from CO exposure in Iowa and 248 emergency department visits from CO poisoning.

## Which Iowa Public Health Goals are we working to achieve?

Protect against environmental hazards

Prepare for, respond to, & recover from emergencies

Prevent epidemics & the spread of disease

Prevent injuries & violence

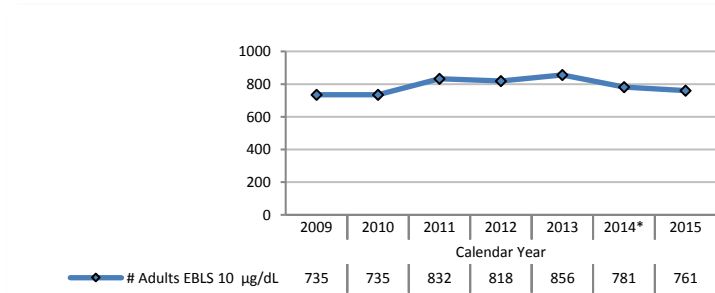
Strengthen the health infrastructure

## What do we do?

- Environmental Health Services works with other state and local agencies to investigate illnesses caused by food, water, or environmental exposures, providing guidance and assistance to local public health officials and other state agencies when needed.
- The Lead Poisoning Prevention program works to reduce childhood lead poisoning. The program manages data surveillance for the entire state. IDPH works with 23 local programs to provide funding and technical assistance to assure services are available across the state. Services may include the promotion of testing, monitoring blood test results for lead exposure, case management with lead hazard identification and intervention for lead-poisoned children with higher levels, and educating Iowans about prevention.
- The Occupational Health and Safety Surveillance program tracks, analyzes, and reports work-related illness, injury, and death data, and oversees all cases of adult lead poisoning. It also provides information to workers, employers, medical providers, and other public health programs.
- The Environmental Public Health Tracking program involves the ongoing collection, integration, analysis, interpretation, and dissemination of data on environmental hazards, exposures to those hazards, and health effects that may be related to the exposures.

## How do we measure our progress?

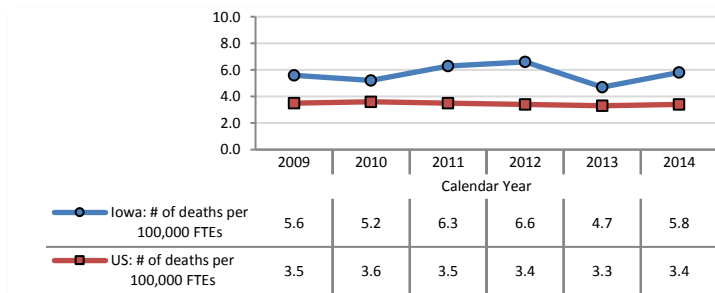
### 1 Number of adults with elevated blood lead (EBL) test results



Data Source: Iowa ABLES Surveillance

**How are we doing?** Numbers have been declining since 2013 at all levels of adult lead exposure. Some of this decrease may be due to a change in the data surveillance system that occurred in July 2014. Surveillance quality improvement measures are ongoing. Activities to raise community and worker awareness of prevention options and the risks of chronic low-level lead adult exposure and acute high-level exposure continue.

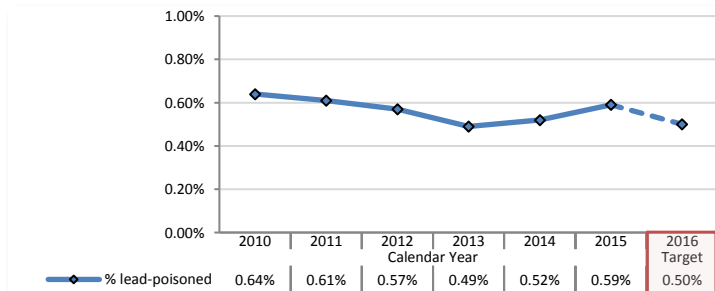
### 2 Rates of fatal work-related injuries occurring in Iowa and the US per 100,000 full time equivalent workers (FTEs).



Data Source: IDPH Occupational Health & Safety Surveillance Program and U.S. Department of Labor.

**How are we doing?** The trend since 2009 shows Iowa's rates trending up, yet US rates are trending down. Iowa has many high-risk jobs and workers often work to an older age. Many high-risk workers work for themselves or for a family or small business that may have limited safety resources. Transportation-related incidents and falls, slips, and trips remain the highest events causing death.

### 3 Percent of Iowa children under 6 years old who have confirmed elevated blood lead levels ( $\geq 10$ µg/dL).



Data Source: IDPH Childhood Blood Lead Surveillance Database. Data are available annually.

**How are we doing?** The percentage of children tested who have confirmed elevated blood lead levels continues to be low.

## What can Iowans do to help?

1. If you have been diagnosed with an environmental-related disease, make sure your physician reports it to IDPH. For a list of reportable environmental diseases, go to <http://idph.iowa.gov/ehs/reportable-diseases>
2. Local public health should consult the Environmental Epidemiology program for help and guidance on possible environmental exposures and health concerns. <http://idph.iowa.gov/ehs>
3. All Iowans should be aware of lead poisoning risks. Iowa parents should be aware of possible exposure to lead hazards and have their children tested for lead poisoning. Adults who work with lead should be aware of their lead exposure level and health impacts. Their children can be poisoned by lead brought home on their clothes, and unborn children can be exposed to lead while a woman is pregnant. <http://idph.iowa.gov/lpp/surveillance>
4. Follow laws requiring training and certification of those who identify or abate lead-based paint, and those who perform renovation, remodeling, and repainting in pre-1978 housing or child-occupied facilities. <http://idph.iowa.gov/lpp/certification>
5. Iowa workplaces should adopt safety practices to prevent illnesses, injuries, and fatalities. <http://idph.iowa.gov/lpp/occupational-health>

## Expenditures

Funding Sources: General fund, federal funds, & retained fees\*. K13-1351; 0153-0402/0984/1708/1912

|                    | State Fiscal Year<br>2015 Actual | State Fiscal Year<br>2016 Actual | State Fiscal Year<br>2017 Estimate |
|--------------------|----------------------------------|----------------------------------|------------------------------------|
| State funds        | \$507,811                        | \$535,202                        | \$537,750                          |
| Federal funds      | \$1,237,722                      | \$1,144,173                      | \$1,153,214                        |
| Other funds*       | \$13,966                         | \$13,373                         | \$24,577                           |
| <b>Total funds</b> | <b>\$1,759,499</b>               | <b>\$1,692,748</b>               | <b>\$1,715,541</b>                 |
| FTEs               | 8.67                             | 8.67                             | 8.95                               |

**Note:** Funding information is intended to provide an overview of funding related to the program area. It does not include all federal and state requirements and/or restrictions for the use of funds. Contact the program area for more detailed budget information.

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